## 19th International Experts Symposium

# **Critical Issues** in Aortic Endografting 2015

May 15th and 16th 2015 Liverpool, United Kingdom

> **Course Directors** John Brennan, Rao Vallabhaneni

**Scientific Committee** Rob Fisher, Stephan Haulon, Martin Malina, ELG Verhoeven

### **Critical Issues in Aortic Endografting 2015** International Experts Symposium

### BT Convention Centre, Liverpool, UK on Fri 15 and Sat 16 May 2015

**Course Directors**: J A Brennan, S R Vallabhaneni **Scientific Committee**: R K Fisher, S Haulon, M Malina, ELG Verhoeven



#### Faculty

**Cherrie Abraham** *Montreal, Canada* 

**Donald Adam** *Birmingham, UK* 

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Martin Austermann Münster, Germany

**Colin Bicknell** London, UK

Rachel Bell London, UK

Jean-Pierre Becquemin Paris, France

**Theo Bisdas** Münster, Germany

**Jan Blankensteijn** Amsterdam, The Netherlands

**Dittmar Böckler** Heidelberg, Germany

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John Brennan Liverpool, UK

Carlos Camps London, UK

**Piergiorgio Cao** *Rome, Italy* 

**Tom Carrell** UK

Nadine Carroll Liverpool, UK

Eric Ducasse Bordeaux, France **Jean-Paul de Vries** Nieuwegein, The Netherlands

**Rob Fisher** Liverpool, UK

**Simon Hobbs** Wolverhampton, UK

**Stephan Haulon** *Lille, France* 

Mike Jenkins London, UK

**Alan Karthikesalingam** London, UK

Patrick Kelly Sioux Falls, USA

**Ralf Kolvenbach** *Düsseldorf, Germany* 

Manoj Kuduvalli Liverpool, UK

**Thomas Larzon** Örebro, Sweden

Chris Lowe Manchester, UK

Martin Malina Malmö, Sweden

Charles McCollum, Manchester, UK

**Richard McWilliams** *Liverpool, UK* 

**Barend Mees** *Maastricht, The Netherlands* 

**Bijan Modarai** London, UK

Nilo Mosquera Ourense, Spain Simon Neequaye, Liverpool, UK

Aung Oo Liverpool, UK

Timothy Resch Malmö, Sweden

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**Rob Sayers** *Leicester, UK* 

**Geert Willem Schurink** *Maastricht, The Netherlands* 

Vince Smyth Manchester, UK

**Rob Thompson** *Flagstaff, USA* 

Francesco Torella Liverpool, UK

Ramesh Tripathi Bangaluru, India

**Rao Vallabhaneni** *Liverpool, UK* 

**Eric Verhoeven** *Nuremberg, Germany* 

**Steve Wallace** *Liverpool, UK* 

**Rob Williams** Newcastle-upon-Tyne, UK

**Chee Yeong** Warrington, UK

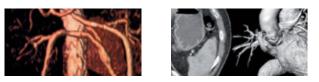
**Oliver Zuzan** *Liverpool, UK* 

### Day 1 Friday 15 May 2015

Rate this on a scale of 1 (Poor) to 5 (Excellent) Please tick box ✓	08:00       Registration opens Coffee         08:20 – 08:30       Opening Remarks John Brennan & Rao Vallabhaneni         08:30 – 09:30       Session 1. Surveillance Chairmen: Eric Verhoeven, Jonathan Boyle
Personalised surveillance after standard EVAR – how far are we from it?Alan Karthikesalingam12345	<ol> <li>Personalised surveillance after standard EVAR – how far are we from it? Alan Karthikesalingam</li> <li>Post-EVAR surveillance has major workload and expense implications. Matt Thompson's group have been developing validated models to distinguish patients who require intensive surveillance from those in whom less frequent surveillance would be adequate. Can we now start implementing surveillance tailored to individual patients that is safe, effective, better accepted and more economical?</li> </ol>
Plain X-rays in EVAR Surveillance: are you using them the way they should be?Richard McWilliams12345	2) Plain X-rays in EVAR Surveillance: are you using them the way they should be? Richard McWilliams Plain X-Rays are extremely useful in EVAR surveillance and their value is often unrecognised. As ultrasound is increasingly being used instead of CT for surveillance, what are the complications that you will miss if you do not perform Plain X-Rays? How should they be done and interpreted?
<b>Contrast enhanced</b> ultrasound (CEUS) with harmonic imaging – is it better than CTP Steve Wallace 1 2 3 4 5	<b>3) Contrast enhanced ultrasound (CEUS) with harmonic imaging –</b> <b>is it better than CTP</b> <i>Steve Wallace</i> CEUS with modern scanners and contrast agents is a vast improvement on the original CEUS, but little has been published on this in the area of EVAR surveillance. With excellent sensitivity and the ability to provide real-time information, CEUS with harmonic imaging has the potential to surpass CT scanning in endoleak detection and characterization.
<b>Expanding aneurysm with</b> <b>no endoleak. How best to</b> <b>investigate?</b> Dittmar Böckler 1 2 3 4 5	<ul> <li>4) Expanding aneurysm with no endoleak. How best to investigate? Dittmar Böckler</li> <li>Aneurysms that go on expanding after EVAR are a source of concern as the continued anatomical distortion can lead to loss of seal and even rupture. The worse case scenario is if you cannot tell why the aneurysm is expanding. Listen to an expert about how best to investigate this problem.</li> </ul>
What does the evidence say fEVAR and bEVAR surveillance should be?Simon Hobbs12345	<ul> <li>5) What does the evidence say fEVAR and bEVAR surveillance should be? Simon Hobbs</li> <li>Surveillance after fEVAR should not only reveal the state of aneurysm exclusion and any threats to it, but also detect any problems with target vessel perfusion. What is the state of evidence for the best methods and the frequency of surveillance required?</li> </ul>
	Panel discussion

	09	:30 – 10:30 Session 2. Secondary Intervention Chairmen: Martin Malina, Rob Fisher	Rate this on a scale of 1 (Poor) to 5 (Excellent) Please tick box ✓
	1)	<b>Profile of secondary interventions in current practice.</b> <i>Bijan Modarai</i> Improvements in stent-graft technology and physician experience have reduced the incidence of post-EVAR complications, but has not eliminated them. What are the secondary interventions being done these days and what for?	<b>Profile of secondary</b> <b>intervention in current</b> <b>practice.</b> Bijan Modarai 1 2 3 4 5
ention	2)	Intervention for type II endoleaks – what purpose does it serve? Rob Williams Type II endoleaks are usually left alone unless they are implicated in an additional problem such as aneurysm expansion. A plethora of techniques for tackling type II endoleaks have been described, but what are their success rates in eliminating the endoleak ? Is this usually all that is necessary?	<b>Intervention for type II</b> endoleaks – what purpose does it serve? Rob Williams 1 2 3 4 5
<ul> <li>Secondary Intervention</li> </ul>	3)	<b>Endoluminal relining of failing EVAR: when, why and how?</b> <i>Rao Vallabhaneni</i> A technique to comprehensively shore-up a failing stent-graft is to reline it completely and endoluminally. When might this technique be useful, why, technical aspects of doing it and when not to attempt it.	<b>Endoluminal relining of</b> <b>failing EVAR: when, why</b> <b>and how?</b> Rao Vallabhaneni 1 2 3 4 5
	4)	<b>Failed EVAR – What are the surgical options?</b> <i>Mike Jenkins</i> A number of open surgical techniques are used to manage a failed EVAR. This includes open closure of endoleaks, banding of the aneurysm neck, repairing device fabric holes, in addition to complete or partial removal of the device and replacement with a surgical graft. What are the technical aspects?	Failed EVAR – What are the surgical options?Mike Jenkins12345
	5)	Reinterventions specific to fenestrations and branches. Stephan Haulon Advanced stent-graft technology has with it specific re-interventions with the aim of preserving or restoring target vessel related perfusion or seal issues. Share the experience of an experienced surgeon. Panel discussion	Reintervention specific to fenestrations and branches.Stephan Haulon12345
	10	: <b>30 – 10:50</b> Coffee	

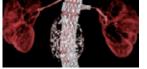




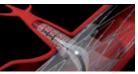


### Day 1 Friday 15 May 2015

Rate this on a scale of 1 (Poor) to 5 (Excellent) Please tick box ✓	<b>11:00 – 12:00 Session 3. Review of Evidence</b> Chairmen: Jean-Pierre Becquemin, Francesco Torella	
<b>UK-EVAR I, OVER and Dream</b> <b>Trials: are the findings of</b> <b>these trials still applicable?</b> Jan Blankensteijn 1 2 3 4 5	1) UK-EVAR I, OVER and Dream Trials: are the findings of these trials still applicable? Jan Blankensteijn It is nearly ten years since the first RCTs addressing open repair versus EVAR in patients suitable for both have been reported. EVAR technology as well as risk management in OR have changed since then. Are the conclusions of these trials still valid in today's practice and why?	
<b>UK-EVAR II and PIVOTAL</b> <b>Trials: Should you still offer</b> <b>EVAR to patients unfit for</b> <b>open repair?</b> Jonathan Boyle 1 2 3 4 5	2) UK-EVAR II and PIVOTAL Trials: Should you still offer EVAR to patients unfit for open repair? Jonathan Boyle RCTs of patients unfit for OR showed little benefit in offering them EVAR. Should you be offering EVAR at all to such patients in your practice currently and why?	
<b>EVAR for ruptured AAA:</b> We know what the trials showed – don't we? Rob Sayers 1 2 3 4 5	<ul> <li><b>3) EVAR for ruptured AAA: We know what the trials showed – don't we?</b> <i>Rob Sayers</i></li> <li>There has been a surprising volume of research in this difficult area including RCTs. Why is there so much debate about the conclusions of the RCTs when they in fact appear to prove most of the prior suppositions were right?</li> </ul>	
INSTEAD XI: What is all the fuss about when it showed what you expect after INSTEAD? Piergiorgio Cao 1 2 3 4 5	4) INSTEAD XL: What is all the fuss about when it showed what you expect after INSTEAD? Piergiorgio Cao The INSTEAD trial showed that morphological changes in the aorta were favourable in the EVAR group when compared to those managed conservatively. There was optimism that this may well lead to better survival. Now the later follow-up (XL) shows that it is true, but critics are not convinced. Why?	
What we know and what we don't in relation to fEVAR versus open repair for juxtarenal aneurysms?Nigel Armstrong12345	5) What we know and what we don't in relation to fEVAR versus open repair for juxtarenal aneurysms? <i>Nigel Armstrong</i> A substantial proportion of fEVARs implanted made their way into publications of one sort or the other, making it one of the most closely scrutinized techniques. It is worth looking at the evidence then. Nigel is the lead author of the Technology Review commissioned by the British Health Technology Assessment (HTA) Programme and has scrutinized more than 5000 publications in this area!	
	Panel discussion	







	12:00 - 13:00	Session 4. Technology Update Chairmen: Rachel Bell, Jan Blankensteijn	
		Late-breaking presentations showcasing technological updates or clinical trial results from industry partners.	
		Aortic by Design. Carlos Camps.	
		<ul> <li>Balancing off-the-shelf devices and a personalised fit in endovascular graft design. Blayne Roeder.</li> </ul>	
		• Results from the EVAS Forward Global Registry. Jean-Paul de Vries	
		• Trusted Performance Today and Tomorrow: innovative solutions and distinct technology capabilities. Rob Thomson.	
		• Endoluminal bypass for TAAA. Patrick Kelly.	
		<ul> <li>Protect the neck – a proven sealing technology preserving the neck anatomy. J-P Becquemin.</li> </ul>	
		<ul> <li>Advanced Technologies for the treatment of highly angulated aortic necks. Nilo Mosquera.</li> </ul>	
		Discussion	
	13:00 - 14:00	. Lunch and exhibition	Rate this on a scale of 1 (Poor) to 5 (Excellent)
	14:00 – 15:00	Session 5. Technological solutions to some old problems Chairmen: Piergiorgio Cao, Mike Jenkins	Please tick box ✓
Г	1) Can we eradi	cate the scourge of endoleaks ? Rachel Bell	Can we eradicate the
			scourge of endoleaks ?
	There are endo	leaks and there are endoleaks ! Whatever your take on different fe would be much better if there are no endoleaks. What are the	Rachel Bell
		to eradicate them and can we eradicate them?	1 2 3 4 5
<b>m</b> S	0		Incidence and
	zj inclaence an	d consequences of stent-graft fatigue. Thomas Larzon	Incidence and consequences of
<b>L</b> O	The composite	nature of stent-grafts creates a risk of failure due to fatigue	stent-graft fatigue.
		teraction. How frequent is this problem now and what are the	
to some old problems	consequences?		1 2 3 4 5
		gard neck and iliac anatomy if we seal the aneurysm?	Can we disregard neck
_	Dittmar Böckl	er	and iliac anatomy if we seal the aneurysm?
	Endovascular A	neurysm Sealing is a new concept, where seal is obtained by filling the	Andrew Holden
릉		n with polymer bags. As this is clearly different from the traditional safely ignore the anatomy of the aneurysm neck and iliac segments?	
	EVAN, Call Wes	safely ignore the anatomy of the aneurysm neck and mac segments?	1 2 3 4 5
<b>Fechnological solutions</b>			
Ö	4) Is off-the she	If technology for branched and fenestrated devices likely to ustom-made devices?	Is off-the shelf technology for branched and
Ē	Timothy Resch		fenestrated devices
9	,		likely to supersede
		f maintaining visceral perfusion while extending seal zones beyond effectively solved with the use of custom-made devices. There will be	custom-made devices? Timothy Resch
		hese advanced devices are available off-the-shelf. What is the current	mouny resch
	state-of-the art	?	1 2 3 4 5
			Colving the problem of the
L	5) Solving the p	rohlem of the aortic arch. Donald Adam	Solving the problem of the aortic arch.
	A ortic arch cro	ates a difficult challenge with its curved anatomy, proximity to the heart	Frans Moll
		great vessels. How is this being tackled for stent-grafting?	
			1 2 3 4 5

### Day 1 Friday 15 May 2015

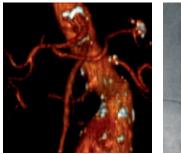
Rate this on a scale of 1 (Poor) to 5 (Excellent) Please tick box ✓	<b>15:00 – 16:00 Session 6. Patient selection and Screening</b> Chairmen: Cherrie Abraham, John Brennan	
<b>In defence of UK AAA</b> screening programme: it is not a waste of time and money. Rob Fisher 1 2 3 4 5	<ul> <li>1) In defence of UK AAA screening programme: it is not a waste of time and money. Rob Fisher</li> <li>The detection rates of AAA in the UK's national screening programme are nowhere near the rates seen in the trial that gave us the evidence basis for screening. Sceptics might question the utility of this expensive programme, but Rob Fisher will tell us why it is still worth it.</li> </ul>	
What purpose if any, does CPEX Testing serve in relation to aortic aneurysms?Oliver Zuzan12345	<ul> <li>2) What purpose if any, does CPEX Testing serve in relation to aortic aneurysms? Oliver Zuzan</li> <li>Most physicians are confident at interpreting the results of a test they have ordered, that is until they are given the print out of a CPEX test ! This test is widely used and its value widely debated. What is it a test of? What are the implications of different results? Are they the same for OR and EVAR?</li> <li>3) Standard EVAR in challenging short necks: what have we learned about durability ?. Theo Bisdas</li> <li>With increasing experience, the temptation is greater than ever to implant standard EVAR in challenging packs instand of turning to complex or advanced</li> </ul>	
Standard EVAR in challenging short necks: what have we learned about durability <b>P.</b> Theo Bisdas12345	<ul> <li>3) Standard EVAR in challenging short necks: what have we learned about durability ?. Theo Bisdas</li> <li>With increasing experience, the temptation is greater than ever to implant standard EVAR in short and challenging necks instead of turning to complex or advanced techniques. Is this approach justified ? What can be said from PANDORA registry?</li> </ul>	
Managing frailty in aneurysm patients.Nadine Carroll12345	<b>4) Managing frailty in aneurysm patients.</b> <i>Nadine Carroll</i> With emphasis not only upon reducing perioperative mortality, but also upon quality of life extended as result of aneurysm repair, managing frailty in this group of elderly patients is essential. How to do it?	
<b>Day case EVAR.</b> Simon Neequaye	<b>5) Day case EVAR.</b> <i>Simon Neequaye</i> Is 'day case' the only reason to do EVAR percutaneously although you get perfect results with conventional exposure of femoral arteries? Anatomical features you need to be cautious about to do a PEVAR. Techniques and options available. Managing other aspects to make day case EVAR a safe proposition.	
	<b>16:00 – 16:20</b> Coffee	



	16	30 – 17:40 Session 7. Advanced EVAR Chairmen: Stephan Haulon, Rao Vallabhaneni	Rate this on a scale of 1 (Poor) to 5 (Excellent) Please tick box √
	- 1)	<b>Chimneys, periscopes and snorkels (CHIMPS):</b> <b>Overview of potential stent-graft combinations – what works best?</b> <i>Martin Austermann</i> Target vessel perfusion can be maintained by innovative use of visceral vessel stents in combination with standard EVAR devices, which may well be off-label use. With a range of covered, uncovered, self-expanding and balloon expandable stents available to go with another range of EVAR devices, what are the best possible combinations for this and why?	Chimneys, periscopes and snorkels (CHIMPS): Overview of potential stent- graft combinations – what works best?Martin Austermann12345
	2)	<b>Debate: Avoid CHIMPS at all costs!</b> Barend Mees	Debate: Avoid CHIMPS at all costs!Barend Mees12345
Advanced EVAR	3)	<b>Debate: CHIMPS are your best friend!</b> <i>Eric Ducasse</i> Opinions are divided if the use of CHIMPS is wise and effective or not. Two experts debate the pros and cons of these techniques.	<b>Debate: CHIMPS are your best friend!</b> Eric Ducasse 1 2 3 4 5
Adv	4)	<b>Overlook iliac zones at your peril!</b> John Brennan. While a lot of emphasis is placed on aneurysm neck, in fact, creating or maintaining a seal in the iliac zones can be frequently troublesome. Why should we pay attention to iliac zones and how?	<b>Overlook iliac zones</b> <b>at your peril!</b> John Brennan. 1 2 3 4 5
	5)	<b>What would be the ideal consignment stock to manage ruptured AAAs?</b> Jean-Paul de Vries From a population point of view, what proportion of rAAA would be best treated by different configurations including bifurcated systems, AUI, Nellix etc	What would be the idealconsignment stock tomanage ruptured AAAs?Jean-Paul de Vries12345
L	- 6)	<b>TEVAR for Ruptured TAAA.</b> <i>J-P Bequemin</i> Applicability and results of TEVAR for ruptured TAAA.	<b>TEVAR for Ruptured TAAA.</b> J-P Bequemin 1 2 3 4 5
	19	<ul> <li>30</li></ul>	Please present your invitation at the entrance.

Day 2	Saturday 16 N	lay 2015
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Rate this on a scale of 1 (Poor) to 5 (Excellent) Please tick box ✓	08:00 - 08.30 Registration and coffee 08:30 – 09:30 Session 8. Imaging for EVAR Chairmen: Rob Sayers, Rob Williams	
<b>Low-dose CT for EVAR</b> <b>planning and surveillance.</b> <i>Chee Yeong</i> 1 2 3 4 5	<ol> <li>Low-dose CT for EVAR planning and surveillance. Chee Yeong</li> <li>Developments in CT image acquisition allow capturing arterial images with approximately a quarter of the usual radiation dose and lower contrast load. How does this work? How much lower radiation and contrast volume? Adapting your work to this new method of imaging and early clinical results.</li> </ol>	
Advanced functions of intraoperative imaging – do they represent real value, or just fancy terminology? Tom Carrell12345	<ul> <li>Advanced functions of intraoperative imaging – do they represent real value, or just fancy terminology? <i>Tom Carrell</i></li> <li>A variety of intraoperative guidance facilities and advanced features have been introduced into angiographic equipment. What are they? What are they useful for? Do they bring real value or just fancy tricks?</li> </ul>	
<b>3-D Ultrasound – Clinical application.</b> Chris Lowe 1 2 3 4 5	<ul> <li>3) 3-D Ultrasound – Clinical application. Chris Lowe</li> <li>A significant breakthrough is the advent of 3-D ultrasound, particularly when combined with contrast enhancement. How does this new technology work ? Clinical results and application to aneurysms.</li> </ul>	
How essential is the provision of a Hybrid Operating Theatre for an EVAR programme? Vince Smyth 1 2 3 4 5	<ul> <li>4) How essential is the provision of a Hybrid Operating Theatre for an EVAR programme? Vince Smyth</li> <li>European standards for hybrid operating theatre. Regulatory and clinical implications of theatre environment for EVAR programme.</li> </ul>	
<b>Carbon dioxide EVAR.</b> <b>Practical use.</b> Martin Malina 1 2 3 4 5	<ul> <li>5) Carbon dioxide EVAR. Practical use. Martin Malina</li> <li>There are a small but significant number of patients in whom avoidance of any iodinated contrast material will be valuable. Technique of EVAR using CO2 contrast – how do I do it? Why is it not used more widely?</li> </ul>	

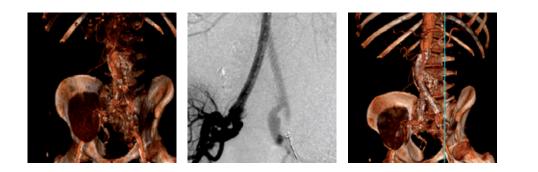






	09	30 – 10:30 Session 9. Thoracic EVAR and Dissection Chairmen: Rachel Bell, Mike Jenkins	Rate this on a scale of 1 (Poor) to 5 (Excellent) Please tick box ✓
Thoracic EVAR and Dissection	1)	<b>Use of stent-grafts in the ascending aorta – the ultimate challenge.</b> <i>Ralf Kolvenbach</i> Clinical situations when you may wish to consider stent-grafting in the ascending aorta. Anatomical and physiological factors that make it a difficult proposition. Expert with substantial experience of this procedure shares his views.	<b>Use of stent-grafts in the ascending aorta – the ultimate challenge.</b> Ralf Kolvenbach
	2)	<b>Clinical decision making in acute Type B dissection.</b> <i>Aung Oo</i> How to manage the acute Type B dissection? What are the aims of medical management and how do you recognize failure of medical management?	<b>Clinical decision making</b> <b>in acute Type B dissection.</b> Aung Oo 1 2 3 4 5
	3)	<b>Technical aspects of TEVAR for acute/post-acute Type B Dissection.</b> <i>Eric Verhoeven</i> What are the aims of intervention and technical considerations to plan TEVAR. Extent of coverage, intraoperative techniques, use of distal bare segments, evaluating adequacy of intervention.	Technical aspects of TEVAR for acute/post-acute Type B Dissection.Dissection.Eric Verhoeven12345
	4)	<b>Physiology of spinal cord protection and monitoring.</b> <i>Geert Willem Schurink</i> The physiology of motor evoked potentials and their monitoring. How are they used intra and post operatively to prevent paraplegia?	Physiology of spinal cord protection and monitoring.Geert Willem Schurink12345
	5)	<b>Paraplegia-prevention branch (PPB) - Does it have a role?</b> <i>Cherrie Abraham.</i> Incorporation of a dedicated branch in a device to maintain intercostal/lumbar artery perfusion via the aneurysm cavity (a deliberate endoleak) is referred to as a PPB. The strategy is to close this once you are no longer concerned with the risk of spinal cord	<b>Paraplegia-prevention branch (PPB) - Does it have a role?</b> Cherrie Abraham.
		ischemia, and often as a secondary intervention. Technical and practical aspects of using a PPB.	1 2 3 4 5

10:30 – 10:50. . . . . Coffee



	Day 2 Saturday 16 May 2015	
Rate this on a scale of 1 (Poor) to 5 (Excellent) Please tick box 🗸	<b>11:00 – 12:30 Session 10. Complex EVAR</b> Chairmen: Manoj Kuduvalli, Richard McWilliams	
"Impossible" cannulations in fenestrated/branched endografts: can we leave some fenestrations un- stented ? Eric Verhoeven12345	<ol> <li>"Impossible" cannulations in fenestrated/branched endografts: can we leave some fenestrations un-stented ? Eric Verhoeven</li> <li>Cannulating target vessels followed by tracking sheaths and stents can be challenging when doing a f/b EVAR. Troubleshooting advise from an experienced and physician and what to do with the 'impossible' situation?</li> </ol>	
Combined EVAR and CABG – single centre series. Ramesh Tripathi12345	2) Combined EVAR and CABG – single centre series. Francesco Torella The combination of a large AAA and coronary disease requiring CABG create a difficult scenario. AAA repair first increases the risk of a perioperative MI and CABG first runs the risk of AAA rupture. First-ever series of concomitant EVAr and CABG.	
Chronic dissection – the challenges of creating a proximal landing zone for the treatment of CTBAD.12345	<b>3) Chronic dissection – the challenges of creating a proximal landing zone</b> <b>for the treatment of CTBAD.</b> <i>Colin Bicknell</i>	
Chronic dissection: dealing with the visceral segment and a fibrosed septum in CTBAD. Donald Adam12345	<b>4) Chronic dissection:</b> <b>dealing with the visceral segment and a fibrosed septum in CTBAD.</b> Donald Adam	
<b>Dealing with the distal end</b> <b>of the repair in CTBAD.</b> <i>Eric Verhoeven</i> 1 2 3 4 5	<b>5) Dealing with the distal end of the repair in CTBAD.</b> <i>Eric Verhoeven</i> Endovascular repair is a very useful technique to have in your armamentarium if you are confronted with chronic Type B dissections that need treatment. This is an area where morphology and challenges are varied and difficult. These three lectures deal with the different areas - proximal landing zone, visceral segment and distal landing zone.	
	<b>13:00</b> Lunch and close of meeting.	

This symposium is made possible by Educational Grants from the following companies:



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#### **Congress Venue:**

BT Convention Centre Kings Dock, Waterfront Liverpool L3 4FP, United Kingdom

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Website: http://www.accliverpool.com/

#### **Registration:**

Complete the evaluation forms and hand to registration to collect your CPD

#### Social programme:

Friday 15 May....18:00 .... Reception

19:30 .... Dinner at the Royal Liver Building, Liverpool

Sightseeing tours available for accompanying persons.

### **Critical Issues 2015**

May 15th and 16th 2015 Liverpool, United Kingdom



#### **Conference organiser:**

Ruth Moss, Conference Office: Critical Issues 2015

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Critical Issues in Aortic Endografting 2015, Liverpool, UK is **# EthicalMedTech** Compliant.

Attending the full symposium gives 9 hours of CPD.

KEEP THE DATE Critical Issues 2016 May 20-21, Lille, France Course Director: Stéphan Haulo